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SPACE LAW: STATE RESPONSIBILITY FOR  
SPACECRAFT DAMAGES AND FOR THE  
RETURN OF PERSONNEL AND EQUIPMENT

CARL E. BUCHMANN

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A Thesis

Presented to

The Judge Advocate General's School,  
U. S. Army

by

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The opinions and conclusions expressed herein are those of the individual student author and do not necessarily represent the views of either The Judge Advocate General's School or any other governmental agency. References to this study should include the foregoing statement.

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STANDARDIZATION  
CONCEPTS  
RESEARCH

NPS ARCHIVE  
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BUCHMANN, C

## SCOPE

A critical analysis of the requirements for an international regime of space law concerning itself specifically with two areas of space exploration most urgently requiring agreement: that of liability for damages caused by space vehicles, or parts thereof, landing in countries other than that of the launching state; and appropriate international rules regarding the recovery and return to the launching state of space vehicles and personnel.

This analysis includes a development of the sources of international law and the uses to which such sources may be applied to the two areas mentioned above. It also includes an examination of air and sea law as a valuable analogy for the development of the law of outer space.



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## CHAPTER I

### INTRODUCTION

Along with the space age have come the space problems -- where is space? who controls it? what is the law out there? do we already have a set of rules governing outer space? and a myriad of other questions, some with answers, some without answers, some answered by more questions. This paper will attempt to reveal the accomplishments that have been made so far in defining space, our progress in setting forth some rules of the road, and several proposed solutions to some pressing problems we now face in the field of space research.

In a recent speech given by Colonel John Glenn,<sup>1</sup> USMC (ret.), he reportedly voiced his dislike for the term "space race," which indicated to him that the Americans were engaged in some kind of a gigantic drag race with the Russians. In a sense, Colonel Glenn's opinion notwithstanding, the element of a drag race is with us in our never ending search for answers to what is in space. The big difference being -- when you are in a

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1. The Daily Progress (Charlottesville, Va.), Dec. 19, 1964, p. 4, col. 7.



drag race of the ordinary sort, the rules of the race are clearly defined before the race begins. Unfortunately, our race and our rules are progressing in juxtaposition to each other, and at times, at least, it appears that the relative standings of the participants are much more discernable than are the rules under which the race is being conducted.

To draw an analogy between a game and the serious business of space exploration and the laws governing the same is not an attempt to minimize the deadly consequences which may result from an oversimplification of the need for international agreements relating to space research. We are dealing with a subject matter upon which may easily hinge the future of generations, or the lack of any future at all. As far back as 1902, attempts were being made to define space, and the rights thereto,<sup>2</sup> long before the average man could envision what every modern day child accepts as normal, the orbiting of space vehicles around the earth with successful regularity.

It will not be within the purpose of this paper to discuss all or even many of the problems which have arisen as the age of space unfolds; but, rather, to limit

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2. Institute of International Law, Brussels, 1902.



it to a discussion of two facets of our present participation in space exploration which need more definitive agreement; the development of law in other fields which may assist in reaching such agreement; and what progress has been made up to the present time. The first is a need for rules or laws governing liability for damages caused by space vehicles and devices, and, second, a need for agreement among states concerning the rescue of astronauts and space ships in the event of accident or emergency landing in territory not under the control of the launching state -- at first blush, two simple enough areas to discuss. However, an understanding of the background attendant to such problems, and what has led up to the realization for these needs, will necessarily be discussed before these two subjects can be explored.

The exploration of outer space will continue to captivate the minds and imagination of men for many years. Progress which will be meaningful and beneficial to all mankind can be realized if a cord of international cooperation can be maintained. The threshold of a cooperative climate in space activity has finally been transcended; however, the progression must continue if we are to attain the high goals to which this country has always aspired. Have no doubt, this will not be a





simple task in an age where we are demanding tomorrow what was unheard of yesterday and where the passage between the two is filled with so many unknowns. The late President John F. Kennedy once said, ". . . For we meet in an hour of hope and fear; in an age of both knowledge and ignorance. The greater our knowledge increases, the greater our ignorance unfolds."<sup>3</sup> Incredible headway has been made by this country and others since Colonel Glenn completed his flight into space in February 1962. What seemed like impossible predictions concerning space exploration a short time ago have become realities, leading to the world space of today being the space of "infinite possibilities."<sup>4</sup>

The celerity with which science is forging ahead in space technology requires a need for negotiating specific areas of agreement in this field among participating states. The United States, as of now, is participating with more than forty countries on cooperative adventures in the space field. But it has been suggested that some

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3. N.Y. Times, Sept. 17, 1962, p. 16, col. 4 (city ed.).

4. Nekolojevic, World Community and World Space, 32/33 Ybk., Ass'n of Attenders and Alumni of the Hague Academy of Int'l L. 152 (1962/63).



of these adventures, and some of these areas, may be easier of achievement if the Forum of the United Nations were utilized for multilateral agreements.<sup>5</sup> What has been and what is being accomplished to this end will be discussed later.

Whoever said, "As long as we keep talking, we won't be shooting," put down in a very few words what it has taken volumes to convey through the years. And it does not miss the mark by much. I am not saying that agreement on the two problem areas which I am posing here, if not arrived at soon, will result in pieces incapable of being put back together again, but I am saying that they are just two among many where negotiation and cooperation will eventually lead us away from the fear of creating pieces at all. At the annual meeting of the American Bar Association in 1958, Past President Rhyne said in his address on "World Peace Through Law":

We live at the turning point in the history of civilization. . . . As we listen to the roar of current history it is absolutely clear that mankind -- men and nations and races -- must learn to live together or else see civilization as we know it perish. . . . The atomic and hydrogen bombs, the ICBM's, the Sputniks, the Explorers and Vanguards

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5. Gardner, Outer Space: The Atmospheric Sciences and U.S. Policy, 47 Dep't State Bull. 1214 (1962); 499.



have attuned the world to an overwhelming desire for peace.<sup>6</sup>

As far back as 1956, Mr. John Cobb Cooper made the statement:

Today neither lawyers nor governments are prepared to state the legal flight rules applicable to presently operating rockets and planned satellites. For the second time in the present century science and engineering have far outstripped the law.<sup>7</sup>

Have we progressed much further in ten years, or is the law still "outstripped"? There is little doubt that our direction is good, but our destination remains afar.

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6. Quoted in Cooper, The Rule of Law in Outer Space, 47 A.B.A.J., 23 (1961).

7. An address made by John Cobb Cooper before the Am. Soc'y of Int'l L., April 26, 1956.



## CHAPTER II

### INTERNATIONAL LAW - WHERE DOES IT COME FROM?

In discussing outer space and the laws which should apply thereto, we must first take a look at the means by which these laws could be formulated. This necessarily takes us into the realm of international law. International law, or, as it has sometimes been called, the "law of nations," has been defined as that body of rules and limitations which the sovereign states of the civilized world agree to observe in their intercourse with each other.<sup>8</sup> At present there are 120 of these sovereign states, 114 of which the United States recognizes; only a small percentage of them are directly concerned with regulations regarding space and spacecraft law. But it would be safe to assume that many, if not all, who have no direct interest are indirectly concerned because the launching of space vehicles can affect any country. In recent years, the machinery has been set up whereby even the smallest state, with the least indirect concern in these matters, can stay abreast of negotiations and take part in discussions on the subject

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8. Davis, Elements of International Law 2 (1903).





through the United Nations Committee on the Peaceful Use of Outer Space.<sup>9</sup>

The need for these rules and limitations on an international basis is not totally analogous to the same need or reason as exist for domestic laws. With domestic laws, sanctions imposed by the state are deterrents to unlawful acts. Punishment for the violation of law is quite distinctive from the reason or virtue of law itself. In the case of international law, while its sanctions have been inadequate, nevertheless it has been generally respected and applied in long periods of peace. Its basic sanction has been simply and effectively the desire for reciprocity and the fear of retaliation. Although the absence of effective sanctions has never been strongly denied, there is evidence of overwhelming acknowledgment of the existence of international law as an obligation upon the States. One writer said:

States may defend their conduct in all sorts of other ways, by denying that the rule they are alleged to have broken is a rule of law. . . and by other excuses more or less sincerely believed in as the case may be; but they do not use the explanation which would obviously be the natural one if there were any doubt that international law has a real existence and that they are bound by it.<sup>10</sup>

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9. This committee was established by U. N. Res. 1472 (XIV) on Dec. 12, 1959. For a discussion of this committee and its accomplishments, see Ch. VI, infra.

10. Brierly, The Outlook for International Law 405 (1944).



## A. SOURCES OF INTERNATIONAL LAW

There is some divergence among writers as to the sources of law,<sup>11</sup> but there is also agreement among them.<sup>12</sup> Article 38 of the Statute of the International Court of Justice<sup>13</sup> directs the court, in deciding questions of international law, to apply:

- a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- b. international customs, as evidence of a general practice accepted in law;
- c. the general principles of law recognized by civilized nations;
- d. subject to the provisions of Article 59,<sup>14</sup> judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law . . . .

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11. See Brierly, *The Law of Nations* 59-66 (6th ed., 1963); and I Oppenheim *International Law* 24 (7th ed., Lauterpacht 1948).

12. Cf. case of *Lubeck v. Mecklenburg-Schwerin* (1874) quoted in part in I Hackworth, *Digest of International Law* 15 (1940), where the court said: "Unity by no means prevails in the literature as to how international law originates. In general, agreement and customary law are named as the sources of international law."

13. For a complete text of the Statute of the International Court of Justice, see 1946/47 Ybk. of U.N. 843 (1946-7).

14. Art. 59 states that a decision of the court has no binding force except between the parties and in respect of that particular case.



The sources of international law and their possible application to a legal regime for outer space should be examined before a comparison is made between the more established areas of international law and that of the law in outer space.

1. Custom

Customary international law is the end result of a tediously slow process of development by acts, and omissions, committed by states in the same manner over a long period of time. Obviously, this cannot happen overnight, but rather a trial and error approach to procedures and practices found to be the most favorable manner in which to carry out a particular act. This cannot be done in a vacuum, however, because, in order for a particular practice to become custom within the international sphere, most of the civilized nations must also find this particular act to be the best means to accomplish whatever is desired. It can be nurtured, for instance, by a state looking back to approved precedents for justification of a particular mode of procedure which is being criticized by another state.<sup>15</sup> There must be some evidence of habitual practice before it

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15. Davis, op. cit. supra note 8, at 23.





can be considered customary. In a dispute between the government of Columbia and Peru, the International Court of Justice stated:

The party that relies on a custom . . . must prove that this custom is established in such a manner that it has become binding on the other party. . . .<sup>16</sup>

Mr. Justice Gray, speaking for the U. S. Supreme Court, in a case concerning the condemning of fishing vessels and their cargoes as prizes of war, stated:

. . . By ancient usage among civilized nations, beginning centuries ago, and gradually ripening into a rule of international law, coast fishing vessels, . . . have been recognized as exempt. . . . It is therefore worth the while to trace the history of the rule, from the earliest accessible sources, through the increasing recognition of it. . . to what we may now justly consider as its final establishment in our own country and generally throughout the civilized world. . . .<sup>17</sup>

Customary law has been likened to the formation of a footpath.<sup>18</sup> The difficulty, which becomes a problem of fact, is in determining the point at which it can be said that it is a path for many and ceased to be a mere trail for only a few. I believe the best answer

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16. Asylum Case (1950), I.C.J. Rep. 266.

17. The Paquete Habana, 175 U.S. 677 (1900).

18. I Walker, Pitt Corbett's Cases on Int'l L. 5 (6th ed. 1946).



to this is that "whenever, and as soon as, a line of international conduct frequently adopted by States is considered legally obligatory or legally right, the rule which may be abstracted from such conduct is a rule of customary international law."<sup>19</sup>

Every custom must originate in some single act; however, it could never be established by some extensive claim being made by a single state, e.g., enormous fishing rights of a certain coastal state.<sup>20</sup>

A most descriptive example of how certain practices of states ripen into customary international law is the development of the law of the sea,<sup>21</sup> which has its roots in history, and through customary usage has become the law among nations. Here, the means by which a practice becomes custom has been dealt with for centuries. In 1871, Mr. Justice Story in delivering an opinion concerning a collision at sea between an American ship and a British steamer, stated:

Undoubtedly, no single nation can change the law of the sea. That law is of universal obligation, and no statute of one

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19. Macgibbon, Customary International Law and Acquiescence, 33 Brit. Yb. Int'l L. 45 (1957).

20. I Whiteman, Digest of International Law 83 (1963).

21. To be discussed in more detail in Ch. III A infra.



or two nations can create obligations for the world. Like all the laws of nations, it rests upon the common consent of civilized communities. It is of force, not because it was prescribed by any superior power, but because it has been generally accepted as a rule of conduct. . . .<sup>22</sup>

Do we have customary international law applicable to outer space? Yes and no. There are varying theories on this matter. The reason for my equivocal answer is that generally there is some customary law that has developed within the international sphere which can be applied to our need for outer space law; however, what we do have is not specifically applicable -- a legitimate tailoring may be fraught with numerous pitfalls -- although we may draw from existing rules of international law to answer some questions pertaining to outer space.

There is no reason to assume that once a state launches a citizen into outer space all the customary international rules of conduct which that state, and others, have abided by for decades suddenly cease to exist as to him, or to the state, because of the launch. At the present time, the best means to ascertain rights and obligations in outer space, i.e., treaties, are not

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22. The Scotia, 81 U.S. 170, 187 (1871).



available, but civilized nations must rely on the manner in which they conducted themselves on earth in order to bring some semblance of order to our ventures in outer space.<sup>23</sup> It has been said that there is no law in outer space. This can be agreed to if a qualification is made that specific laws do not exist. The space age has not been with us long enough to "create," through usage, customary rules of international law regarding outer space. Our experiences have not been great enough to formulate laws as such, but experiences drawn from normal intercourse among nations can surely give guidelines and limits by which the formulation of outer space law can emerge. However, when we speak of space law as such we are not speaking of some of the tools that can be utilized to effect it. Many analogies have been drawn between the formulation of law for outer space and the law of the sea.<sup>24</sup> As mentioned, there is no doubt that some aspects of the law of the sea can be put to excellent

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23. See Jaffee, Reliance Upon International Custom and General Principles in the Growth of Space Law, Mil. L. Rev., 167-80 (April 63).

24. See Williams, The Law of the Sea: A Parallel for Space Law, Mil. L. Rev., 155-72 (Oct. 63); Ward, Projecting the Law of the Sea into the Law of Outer Space, JAG J., 3-8 (Mar. 1957).





use, but we cannot afford the luxury of allowing space law to develop at the tortoise pace that the law of the sea was allowed.

Cohen stated, in his book Law and Politics in Space:

While man crossing the oceans could afford the luxury of two or three hundred years to evolve regimes of the high seas . . . and yet produce in consequence only five or six principles -- widely accepted, flexible and reasonable in their enforceability -- no such leisurely pace is available to man exploring space . . . .<sup>25</sup>

However, a case can be stated for the development of at least an embryonic customary international law (by silence?) pertaining to outer space. Russia and the United States have been orbiting men and/or vehicles in outer space for almost eight years. In all that time, although the United States has widely publicized each planned launch into space, neither nation has asked permission of the other, or of anyone. Neither country has objected to such launching, nor has any nation voiced disapproval concerning a possible violation of sovereign air space, in ascent or descent of the space vehicle.<sup>26</sup>

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25. Cohen, Law and Politics in Space 13 (1964).

26. Munro, United Nations - Hope for a Divided World 163 (1960).



Jaffee concludes from this that outer space has been declared free for the use of all by "custom of nations."<sup>27</sup> I hold some reservations as to the establishment of a customary rule of law in such a short time; however, I do believe that the conclusion reached is, and will continue to be, valid -- but for other reasons.

Although the United Nations will be discussed in a later chapter, it would be worthy of note here to mention that resolutions have been made, and agreed to by many nations, that outer space will be governed by international law.<sup>28</sup> Unfortunately, these resolutions lack definitive language, making the task more difficult and resulting in meeting yourself coming around, so to speak -- but it is a beginning.

Surely the established customary international law concept of a nation's right to self-defense is not to be lost in space. The questions attendant to such a statement are, however, not as easy to answer as the questions are to ask. Admiral Ward, former Judge Advocate General of the Navy, opined<sup>29</sup> that a system of rules

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27. Jaffee, op. cit. supra note 23, at 172.

28. The various resolutions which have been passed are discussed in Ch. VI, infra.

29. Ward, supra note 24.



could be formulated without interfering with a nation's defense requirements. I suggest this as a subject for negotiation and discussion among nations.

In light of what has been said, it is concluded that there is some international law pertaining to outer space, but as Jaffee states, "The drafting and adoption of a comprehensive code of space law would not seem to be required to secure these rules. . . ." <sup>30</sup> Nevertheless, is this actually enough? Relying on general, accepted principles of customary international law can be very helpful if the members of the international family are fortunate enough to be confronted only with general, accepted differences concerning outer space between them. It seems that civilization can ill afford to wait for a body of customary law to develop on an incident-by-incident basis, while, all the time, science is taking not a slow, methodical growing pace, but is advancing at breakneck speed.

Numerous questions arise, <sup>31</sup> and will continue to do so, and the body of customary international law

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30. Jaffee, supra note 23, at 177.

31. See Galloway, Preface to Space Law - A Symposium, Prepared for the Special Committee on Space and Astronautics, U. S. Senate, 85<sup>th</sup> Cong., 2d Sess., Dec. 21, 1958, p. VII [hereinafter cited as 1958 Symposium].



will not suffice to adequately answer these questions. Also, the risks involved in relying on such customs in applying them to an entirely foreign area can be great.<sup>32</sup>

## 2. International Conventions - Treaties

International law has become an indispensable body of rules necessary for the continuation of society as we know it today. This has been brought about by the requirement that nations continue unhampered contact with each other. Along with the increasing necessity of interdependency of states to each other has come the increase of development for international regulation. Earlier in our history we could rely on the slow process of customary international law to develop, but advancements have required a speedier process of law-making.<sup>33</sup> The speedier process found has been the increasing utilization of multilateral conventions and treaties.

Like customary international law, the formulation of and agreement to conventions and treaties can be a sluggish process. Regardless of the slowness of this

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32. See Becker, United States Foreign Policy and the Development of Law for Outer Space, JAG J., 4 (Feb. 1959).

33. Starke, An Introduction to International Law, 12-13 (5<sup>th</sup> ed. 1963).





process, however, the result is reached by active participation of states in negotiation.

Although the term "treaty" is sometimes considered to deal only with political relations and the term "conventions" more often applied to multilateral agreements, for the purpose of this paper no such distinction between the terms will be made. A more formal and satisfactory definition of a treaty is one promulgated in the Draft Convention on the Law of Treaties,<sup>34</sup> which reads as follows:

A treaty is a formal instrument of agreement by which two or more states establish or seek to establish a relation under international law between themselves . . . .

Treaties are usually categorized as being of two types: The "law-making" treaty and the "treaty contract."<sup>35</sup> The "law-making" treaty is one which represents the agreement of a large majority of nations, binding themselves to certain rules of conduct, such as the Geneva Conventions, whereas the "treaty contract" is normally a treaty negotiated between two, or a few, countries regarding an area of special interest.<sup>36</sup> Even

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34. Draft Convention on the Law of Treaties, Art. 1, (a), 29 Am. J. Int'l L. (Supp) 655, 686 (1935).

35. Starke, op. cit. supra, note 33, at 37.

36. Starke, Treaties as a Source of International Law, 23 Brit. Yb. Int'l L., 341-46 (1946).



though, at the present time, only two great powers of the world are capable of mass launchings of space vehicles, it would seem that any agreements negotiated regarding outer space would be of special interest to all nations. With the United Nations available to most of the world's civilized nations for discussion and negotiation, an emphasis should be placed on directing all efforts for multilateral "law-making" treaties to result regarding law and outer space. Outer space and the regulation thereof can surely not be characterized as of interest to only a limited number of states by virtue of its subject matter.

This is not to say that a treaty concluded between only a few states could not be of a "law-making" type, because it could be. It has been suggested that the difference would be in the end result. A "law-making" treaty between only a few states would result in "particular" international law, whereas a "law-making" treaty, with a majority of states of the international community being parties, would result in "general" international law.<sup>37</sup> There will always be a place and circumstance for the use of the "treaty contract," but with the world continuing to become smaller and smaller, the number of

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37. I Oppenheim International Law 28 (8<sup>th</sup> ed., Lauterpacht 1955).



"law-making" treaties will necessarily become larger and larger.

Another term used to describe the treaty of the "law-making" variety is "international legislation."<sup>38</sup> If used cautiously, I believe it to be a valid term.<sup>39</sup> However, even a cursory examination of the machinery available to international law reveals the inadequacies attendant to a generally complete acceptance of the term.<sup>40</sup> As long as the term "law-making" is used in the descriptive rather than as a strict legal term, little confusion can result.

It has been mentioned that the world can ill afford to wait for practices regarding the space age to develop to the point of having a regime of outer space law. Treaty making therefore has become an attractive vehicle by which regulations can be agreed to in clear and coherent form. It is an accepted principle that treaties, as applied to the parties thereto, may modify, nullify or contradict any rule of customary international

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38. See Note, Bishop, *International Law* 34 (2d ed. 1962).

39. Starke, *op. cit. supra*, note 36, at 341.

40. See Brierly, *The Law of Nations* 68-69 (3d ed. 1942).



law, and will supersede customary law in result.<sup>41</sup>

However, the most important use, I believe, that can be made of the multilateral agreement at present is to clarify terms, and decide specific regulations and terms of reference regarding outer space. In this sphere, I do not believe we need concern ourselves with nullification, contradiction or modification because so little refers specifically to outer space. In regard to already established customary international law, if rights already exist concerning a particular subject matter, no treaty need be resorted to.<sup>42</sup>

With the United Nations, the international community has been fortunate to have developed a forum ideally suited for the formulation and adoption of multilateral agreements concerning the various ills of the world. I would like to suggest that upon further refinement of the forum a substantial body of law regarding outer space can be forthcoming. The reason that there is a need for all the world to agree is because all the world is affected by the advances being made in outer space. In treaty-making, the maxim Pacta Tertiis nec

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<sup>41</sup>. The S. S. Wimbledon, P.C.I.J. ser A, No. 1, 15 (1923).

<sup>42</sup>. I Hackworth, supra note 12, at 21.





procent nec pro-cent<sup>43</sup> is well established. This maxim can only be "defeated" by the elimination of any "third states" to conventions regarding law in outer space. Progress towards this goal is, and will continue to be, slow; however, it is mandatory. Contractual, bilateral agreements for cooperative ventures in outer space are concluded between the United States and forty countries,<sup>44</sup> which is a beginning to this proposed goal.

In suggesting that international conventions are the means by which some semblance of order can be established regarding outer space, and laws applicable to it, I must necessarily rely rather heavily upon one of the most ancient rules of international law, the sanctity of treaty obligations. Although all nations agree that treaties must be adhered to, why they have binding force is subject to innumerable replies, with none being too satisfactory. Obviously, regardless of the wide acceptance a rule may have, it is capable of breach by any country at any time. If a party of an agreement believes that by ignoring a generally accepted rule its immediate advantage will be greater than its

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<sup>43</sup>. Which means generally that third parties receive neither rights nor duties from a treaty.

<sup>44</sup>. Gardner, supra note 5, at 496.



interest in the rule itself -- and it can get away with it -- the rule of law will fall to pieces. This normally occurs during a period of crisis, but even our sophisticated system of municipal law "falls to pieces" at times. To point to this as a question of weak enforcement of international law is, I believe, to beg the entire problem. This small inutility, however, should not deter any nation from negotiating for possible solutions to problems confronting the family of nations. The United States has taken the initiative in showing its willingness to do just that. This was epitomized in a statement made by President Johnson on April 20, 1964,<sup>45</sup> when he said:

Our position is clear. We will discuss any problem, we will listen to any proposal, we will pursue any agreement, we will take any action which might lessen the chance of war without sacrificing the interests of our allies or our ability to defend the alliance against attack. In other words, our guard is up, but one hand is out. . . .

As early as 1958, Pepin observed that unless some international agreement was entered into, there existed no legal rule to prevent a state from enacting regulations to control the circulation of spacecraft

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<sup>45</sup>. Address by President Lyndon B. Johnson before the Assoc. Press, April 20, 1964, 50 Dep't State Bull. 1293 (1964); 728.



above its territory and extending its sovereignty unilaterally upwards, because no upper limits had been fixed in any international convention.<sup>46</sup> Although the nations of the world have come to some generalized views regarding space,<sup>47</sup> what Pepin stated remains, for the most part, true today.

The need for completed agreements concerning a multitude of unanswered aspects of our ventures in outer space has long existed. The machinery which prevails for our use in adopting international law to these new conditions lies in the intelligent use of multi-nation agreement.<sup>48</sup>

### 3. General Principles of Law

The use of general principles of law as a source of international law is the practice of considering the general principles of municipal jurisprudence as they may apply to relations of states. It is only natural that municipal law is more developed than international law and can be used as a storehouse of principles upon which international tribunals may draw.<sup>49</sup> Although

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46. Pepin, Space Penetration, Proceedings, American Society of International Law, 229-35 (1958).

47. Refer to chapter on the U.N., *infra*.

48. Brierly, The Law of Nations 59-60 (5<sup>th</sup> ed. 1954).

49. Mahajan, International Law 68 (4<sup>th</sup> ed. 1963).



Von Schuschnigg<sup>50</sup> states that general principles are repeatedly referred to independently in the practice of modern international adjudication, for the most part in arbitration awards, it has been suggested by at least one author that they are used by courts of international justice very sparingly because they are little needed.<sup>51</sup>

Several examples of the use of general principles of law being used by an international judicial body when the decisions could not be based on any formulated rule or evidence of customary law are the Corfu Channel Case<sup>52</sup> and the Chozow Factory Case.<sup>53</sup>

Although the use of general principles of law is valuable in assisting international tribunals to adjudicate claims, I do not believe it extremely important to the law as applied to outer space, as such. However, I do believe these principles can be extremely valuable as a foundation upon which to base negotiations. Mahagan gave as the reason for using general principles in international law was because "... a principle which is found to be generally accepted by civilized legal systems

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50. Von Schuschnigg, *International Law: An Introduction to the Law of Peace* (1959).

51. Briggs, *The Law of Nations* 48 (2d ed. 1952).

52. I.C.J. Rep., 4 (1949).

53. P.C.I.J., ser. A, No. 9, 31 (1929).





can be assumed to be so reasonable as to be necessary to the maintenance of justice under any system. . . ."<sup>54</sup>

This foundation would necessarily be rather elementary, but to begin talks with agreement on some point is usually beneficial in any type of negotiation.

#### 4. Judicial Decisions and Writers' Works

There are some who consider judicial decisions and works of writers as only evidence of what international law is, as opposed to being a source of international law, but I believe they should be considered sources. It has been suggested by Professor Briggs that, in order to add clarity and precision to a discussion of the sources of international law, to employ the term in a formal sense as indicating methods or procedures by which international law is created would be more desirable.<sup>55</sup> When considered in this respect, judicial decisions and writers' works can hardly be considered only evidentiary in nature.

As expressed in Article 38 of the Statute of the International Court of Justice,<sup>56</sup> a judicial decision

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<sup>54</sup>. Mahajan, supra note 40.

<sup>55</sup>. Briggs, op. cit. supra note 51, at 44.

<sup>56</sup>. Stat. of the Int'l Court of Justice, supra note 13, art. 13.



is only binding as to the particular subject matter before the court. To put it another way, there is no stare decisis followed in the International Court of Justice. In spite of this, while being prevented from treating its previous decisions as binding, the permanent court has referred to them with increasing frequency.<sup>57</sup> The cumulative effect of uniform decisions of municipal tribunals would also be capable of giving evidence of what customary international law is. Mr. Justice Gray, when speaking of the making of decisions in international law, stated in Hilton v. Guyot:<sup>58</sup>

The most certain guide, no doubt, for the decision of such questions is a treaty or a statute of this country. But when . . . there is no written law upon the subject, the duty still rests upon the judicial tribunals of ascertaining and declaring what the law is, whenever it becomes necessary to do so. . . . In doing this, the courts must obtain such aid as they can from judicial decisions, from the works of jurists and commentators, and from the acts and usages of civilized nations. . . .

And as his reason for resorting to the words of jurists and commentators, he said in the Paquette Habana

The Lola Case:<sup>59</sup>

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57. I Oppenheim, op. cit. supra note 37, at 31.

58. Hilton v. Guyot, 195 U.S. 113, 163 (1895).

59. See note 17 supra.



. . . Such works are resorted to . . . not for the speculation of their authors concerning what the law ought to be, but for the trustworthy evidence of what the law really is. . . .

It is premature at this point to predict what value past decisions will have upon the law of outer space. I propose multilateral agreements in this area, which would minimize the use of past decisions. In consideration of the wealth of printed material which has been published by space law "experts" over the last decade, reference to this material can be of invaluable assistance during the formulation stages of multilateral agreements. Some writers have gone into this subject in depth, and their theories and conclusions could enhance the knowledge required by the negotiators in determining workable proposals. Furthermore, such writings could serve as a form of "legislative history," with obvious limitations, in deciding claims brought before the international tribunal designed to hear such claims.<sup>60</sup>

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60. This statement is also based on the assumption that my proposal for an international tribunal to adjudicate such claims would be formulated.



## CHAPTER III

### SPACE LAW - SOME ANALOGIES

#### A. THE LAW OF THE SEA

##### 1. Freedom of the Sea

During the fifteenth century, freedom of the seas, as we know it today, was unknown. During this period, states, particularly Spain and Portugal, claimed ownership and exclusive use of enormous areas of the sea.<sup>61</sup> During the early 1500's, a young man by the name of Huig Von Groot<sup>62</sup> published a small treatise under the title Mare Liberum,<sup>63</sup> which was written to attack the unjustified claims being made by Spain and Portugal to the high seas in which they were excluding the rest thereof by any foreigners.<sup>64</sup> It must be realized that opinion to the contrary was generally prevalent, and it would be less than candid to state that at that time Grotius' doctrines were at once universally accepted.<sup>65</sup> Grotius' theory

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61. McDougal and Surin, The Public Order of the Oceans 765 (1962).

62. He is more generally called "Grotius."

63. Published anonymously in 1608. In 1868 it was discovered that Ch. XII of the treatise De Jure Praedae was the Mare Liberum which was written by Grotius in 1604-5.

64. Magoffin, Grotius on the Freedom of the High Seas: Translation of Dissertation by Hugo Grotius - "Mare Liberum," p. viii (1916).

65. I Oppenheim, op. cit. supra note 37, at 65.





was well thought out and his logic was sound,<sup>66</sup> although admirably attacked by several authors some time later.

A portion of the Mare Liberum will convey the essential theme of the treatise, Grotius said:<sup>67</sup>

No one is sovereign of a thing which he himself has never possessed, and which no one else has ever held in his name . . . . It is clear therefore to everyone that he who prevents another from navigating the sea has no support in law. . . .

Keeping in mind that this treatise was written in the early fifteenth century, Grotius made a statement in the Mare Liberum which holds equally true today as it did in that early time. He wrote:

If today the custom held of considering that everything pertaining to mankind pertained also to one's self, we should surely live in a much more peaceful world. For the prescriptiveness of many would abate, and those who now neglect justice in the pretext of expediency would unlearn the lesson of injustice at their own expense. . . .<sup>68</sup>

So we see that a little more than five hundred years ago appropriation of the high seas was deemed

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66. In stating that the high seas were not susceptible to dominion he did, however, neglect to consider a fundamental doctrine of warfare where control of the sea, i.e. power to exclude others from its use, is accomplished quite often.

67. Nagoffin, op. cit. supra note 64, at 44.

68. Id. at 6.







international community than for the theory of incapability of possession, upon which Grotius based his contention.<sup>72</sup> Nevertheless, regardless of the compelling reasons for its acceptance, the basic principle is accepted by the international community, and as a result a body of rules regarding the sea has been able to develop.

It has been suggested that the law of the sea can be a source of principles which may find their usefulness in the development of the law of outer space.<sup>73</sup> Admiral Ward concerned himself with three areas of the law of the sea which could be used as guidelines for the formulation of space law, although he did not attempt to directly apply sea law to space law. One of these areas was sovereignty as recognized regarding the sea. He did, however, express the opinion that it would be unwise and distinctly premature to attempt to set up or propose specific rules of space law in such an early stage of space travel.<sup>74</sup> This was almost eight years ago, however, and I do not believe this reason would hold true today.

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<sup>72</sup> Edmunds, *The Lawless Law of Nations* 200-13 (1925).

<sup>73</sup> Ward, supra note 24.

<sup>74</sup> Id. at 3.



The freedom of navigation on the high seas is internationally accepted as a principle of the law of nations. This same principle has been urged as analogous to the proposed use of outer space.<sup>75</sup> In a sense this may be generally accepted because up to the present time outer space does not lend itself to physical appropriation, and most nations express the desire to apply the concept of freedom of the high seas to outer space.<sup>76</sup> As admirable as this notion may be, the absence of a definition of outer space begets positioning the horse behind the cart. Nations have been able to agree on little more than that outer space exists. With no established limits, we converge head-on with such questions as sovereignty of the air space above national territories. When an attempt is made at defining the area which is designated free to all, we are confronted with the same difficulty that states have been unable to agree upon for centuries: where does the "sovereignty" end and the high seas begin? or where is outer space?

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75. *Id.* at 4-5.

76. See U. N. Gen. Ass. Res. 1721 (XVI), Dec. 20, 1961, International Cooperation in the Peaceful Use of Outer Space.





More than three years ago the United Nations adopted a resolution<sup>77</sup> recognizing several principles regarding the use and exploration of outer space. Two of these principles were that international law applied to outer space and outer space was free for use by all states in conformity with international law.<sup>78</sup> This would seem to be directly in point with the concept of freedom of the seas; however, is it? At the time of negotiating, the drafters neglected to enumerate with what international law principles the states were to conform, and the big question of defining outer space was left unanswered. Along with this void remained a similar empty spot; does some kind of state sovereignty extend to outer space? This also has gone unanswered, or at least not agreed upon.

With the tempo at which man is moving in missilery, space exploration and scientific technology, the idea of a single nation being capable of dominating outer space and restricting its use by other nations is not necessarily a fanciful one. The world community obviously wants to avoid such a thing from happening by adopting resolutions asserting their desires of preserving its use to all. But there remains a need to become more

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77. Ibid.

78. Id. sec. 1(a)(b).



definitive before technology replaces sound interpretation. I suggest that international agreements, specific in nature, spell out not only where outer space is, but what freedoms, i.e., rights and duties, exist regarding it, and what rules of international law govern activity in outer space.<sup>79</sup> This suggestion is not in accord with Williams on this subject. He states:

If the law of space develops through custom and usage, we can expect to see the principle of 'freedom of outer space' develop. On the other hand, if space law were formulated by convention at this time, we would likely see the extension of sovereignty into space -- a most undesirable result. . . .<sup>80</sup>

Can we afford the time which necessarily must pass before sound customary international law principles can develop regarding outer space? I think not. To do this would not only extend the gap we now face between scientific knowledge and a legal regime to govern the use of this knowledge, but such a period would only nurture the same kind of variances we now have in the conflicting claims regarding such things as territorial seas.

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79. See Ch. VI, *infra*, regarding progress made in this area by the U.S.

80. Williams, n. 24 *supra* at 161.



## 2. Territorial Waters.

Along with the development of the principle of freedom on the high seas, there arose a concept of sovereignty over the marginal waters along the shoreline of a state. This marginal area became known as the territorial sea, and became generally accepted in order to effect the security of a state; furtherance of its economic growth, e.g., fishing rights; and as a protection of its fiscal and political interests by controlling ships approaching its shores.<sup>81</sup>

A distinction was therefore early recognized between the high and marginal seas. Most states agreed that each had a legitimate interest in controlling immediate access to their shores and giving exclusive rights in coastal fisheries to their respective nationals. However, the principle of the freedom of the seas was also recognized in a general agreement on freedom of innocent passage through territorial waters, subject to defensive restrictions in time of war.

The United States has, as early as 1794, steadfastly adhered to the principle that the territorial sea extends to a full marine league<sup>82</sup> from its shores.<sup>83</sup>

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81. Colombos, op. cit. supra note 69, at 82.

82. A marine league is equal to three nautical miles or 3.453 statute miles.

83. Id. at 87.



International views among nations are not necessarily in agreement with this concept, however. There are claims as to territorial seas ranging from three to twelve mile limits.<sup>84</sup> And, as recently as January 1965, United States Senator Ernest Gruening, of Alaska, introduced a bill in the Senate to extend the territorial waters of the United States to a distance of twelve miles offshore.<sup>85</sup> Although the adherence to the three mile concept would seem to indicate that, at least as far as the United States is concerned, definitive limits on sovereignty are easily ascertainable, this is not the case. Even with early and continued recognition of the three mile limit, most states also recognize a need for areas beyond this limit for some type of "control." This

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84. Hence, in his book *The Law of Sea and Air Traffic*, H. 1 at 6 (1955), lists the following limits claimed by various nations:

3 mile limit: U.K., U.S.A., Germany, Japan, Holland, Cuba, Panama, Denmark (vis-a-vis states not adhering to 3 mile limit: 4 miles), Belgium, China, Egypt, Greece.

4 mile limit: Norway, Sweden, Finland, Iceland. (4 miles for special purposes) Chile, Ecuador, Argentina.

3-6 miles: France, Poland, Turkey (6 miles for special purposes and in time of war).

6 mile limit: Spain, Portugal, Italy (6 add. in special circumstances), Brazil, Rumania, Uruguay, Yugoslavia.

12 mile limit: U.S.S.R.

In 1954 Peru and other S. American countries claimed a 200 mile limit.

85. U.S. Navy Times, 20 Jan. 1965, p. 31, col. 3.





area has been called the contiguous zone.<sup>86</sup> It is now generally accepted that in this zone, of varying widths according to the state, states may exercise some control for customs, sanitation, and immigration purposes.<sup>37</sup> Beyond this, the United States maintains a zone extending many miles beyond the territorial sea or the stated contiguous zone known as the Air Defense Identification Zone. Exclusive uses such as this could hardly be maintained in Outer Space.

If any kind of rule can be drawn from the varying views of the family of nations it can be stated that it is internationally recognized that the sovereignty of states extends for a distance of at least three miles seaward from their coasts, and it is impossible to go much further than that because countries cannot agree on the limit of territorial waters.<sup>88</sup>

An analysis of the existing rule of customary international law which recognizes freedom of navigation on the high seas results in the question: how and where is it free? It would seem that this principle is only

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86. See generally McDougal and Burke, op. cit. supra note 61, at 382-607.

87. See generally McDougal and Burke, op. cit. supra note 61; 46 Stat. 747, 749 (1930); U.S.C. secs. 1581, 1586-88.

88. Colombos, op. cit. supra note 69, at 94-7.



true during peacetime, as experiences during the two world wars indicated. Further, the rule has always been subordinated to a state's primary interest of security, which is inevitably defined by each state. When considering the analogy of the law of the sea and the law of outer space in the realm of security, the result is contradiction rather than similarity. It would seem that security risk diminishes on the surface of the sea in the same proportion as the distance from the shoreline of a state increases. With the advances made in reconnaissance-type aircraft and satellites, the opposite seems to hold true in the air, in that the higher a satellite circles the globe, the more apt it is to be able to record activity on earth by means of the newly developed and highly sophisticated photographic equipment now available. The facts surrounding the shooting down of a reconnaissance aircraft over Russia and the flights over Cuba verify this. It can be seen, therefore, that the same concepts of freedom of the sea may not be capable of transferring into a regime for outer space. It would seem that to invoke this same international concept to outer space could involve major security risks and may even affect a state's economic interests unless enforceable multilateral agreements













be more fully discussed below. But it suffices at this point to say that we are not in full agreement even within this country regarding sovereignty in space, let alone in agreement in the family of nations. I suggest that agreement should be reached at an early point in space exploration, if possible, before we end up agreeing to disagree in the same manner we are doing with the territorial sea.

### 3. Collision and Assistance at Sea

The history of attempted agreement regarding the law of the sea is not all bleak, however. In 1910, at Brussels, there were two conventions signed regarding rules of law in regard to collision<sup>92</sup> and rules of law regarding assistance and salvage at sea.<sup>93</sup>

In the convention regarding assistance and salvage at sea, to which there are now forty-five states party to the convention, several of the articles therein could lend themselves to tailored use by the drafters of a law for outer space. Some pertinent articles are:

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92. For the complete text of the "International Convention for the Unification of Certain Rules of Law in Regard to Collisions," signed at Brussels, Sept. 23, 1910, see Gibb, Marsden on The Law of Collisions at Sea 542 (9<sup>th</sup> ed. 1934)

93. 37 Stat. 1658 (1913); TS 576.











of being lost; (b) To proceed with all possible speed to the rescue of persons. . . .<sup>102</sup> The most helpful sea laws as applied to outer space activity are the established regulations concerning rescue at sea. Internationally adhered to, these rules stand as a workable guide for an accord regarding rescue and return of space apparatus. Profitable knowledge can be acquired from the principles established by such conventions.

It is my view that to mechanically extend the law of the sea to that of outer space would result in the myriad of rules and regulations we now have, full conflict and narrow interpretation. Unless all agree that freedom to use outer space should not be the subject of agreement at definition, the need for international accord and cooperation is mandatory. What we can learn from the law of the sea is that agreements can be reached on some matters. This alone makes the effort worthwhile. Substantive rules can result from extensive negotiation; therefore all nations should strive to get some rules into concrete form.

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102. Id., art. 12(a)(b).









## 1. An Attempt at Definition

One of the several areas needing qualification in a regime for space law is a definition of space, in order to bring forth a general agreement to the question of sovereignty. This question has been the subject of many conferences during this century, and possibly some agreement, but it must continue until a more encompassing agreement can be reached. A look at the law of air space can give some insight into the problems facing the family of nations in attempting to determine sovereignty rights in space. A brief outline of the history of negotiations in this area may be helpful.

## 2. Sovereignty Solved?

During the early 1900's, Fauchille was the strongest exponent of complete freedom of the air, while giving away a bit to sovereignty by recognizing some sovereignty at very low altitudes -- for security purposes.<sup>104</sup> On the other side of the controversy was John Westlake of England who advocated sovereignty of the air space above a state into infinity.<sup>105</sup>

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104. Fauchille, *Benfile's Annual de Droit International Public*, vol. 1, pt. I (8<sup>th</sup> ed. 1922).

105. Cooper, supra note 89.





















offer us a guide in negotiating the same subject matter regarding outer space because it covered such areas as proof of liability,<sup>121</sup> amount of liability,<sup>122</sup> insurance coverage,<sup>123</sup> effect of negligence<sup>124</sup> and jurisdiction.<sup>125</sup>

The only new convention in this area to be concluded is the Convention of Rome of 1952, which, although intended to replace the 1933 conventions, still does not have as signatories some of the larger states, such as the United States and the United Kingdom, and no country has ratified it.<sup>126</sup> Therefore, it appears that we cannot rely too heavily upon what has been accomplished in the development of air law in order to formulate a system of remuneration for damages to third parties,<sup>127</sup> or to decide the question of responsibility in space.

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121. The Convention of Rome, 1952, USTS 876.

122. *Id.*, art. 8.

123. *Id.*, art. 12.

124. *Id.*, art. 14.

125. *Id.*, art. 16.

126. Hene, *op.cit.* *supra* note 84, at 280.

127. It should be noted that the Warsaw Convention of 1929 (49 Stat. 3000) concerns itself with liability for injuries, but only in regard to passengers.











































































































## CONCLUSION RECOVERY AND RETURN

One of the areas of some activity which has received little attention is the recovery and return of crashed or apprehended spacecraft to the launching state. Some progress has been made in the United Nations in this area, but there are several problems which do not seem close to solution.

As we have seen, a spacecraft once launched can descend to earth far from the spot chosen as its destination. Since this is true, some agreement must be reached whereby the launching state can recover the vehicle, and pilots, if any, with minimum of difficulty. Mr. Haley points out that unless there is an international agreement concerning this subject, the problem of recovery will necessarily depend on the laws of the country where the vehicle lands.<sup>190</sup> This could lead to many problems, and, I believe, it would be wise to agree now before the problem becomes even more acute than it is presently.

One of the difficulties which discussion of recovery of equipment raises in the satellite which may be classified

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190. Haley, op. cit. supra note 135, at 865.



































10. Objects or component parts launched beyond the limits of the State of registry shall be returned to that State. . . .

And Paragraph 8 reads in part:

Each State which launches or procures the launching of an object into outer space . . . is internationally liable for damages on a foreign State or on its natural or juridical persons by such object or its component parts. . . .

This paragraph was conspicuously silent on the question of how fault would be established before recovery for damages could be realized.

In addition, the General Assembly also adopted unanimously in January 1968, as Resolution 210, another resolution<sup>210</sup> requesting the Committee to " . . . arrange for the prompt preparation of draft international agreements on liability for damage caused by objects launched into outer space and on compensation and return of astronomical and space vehicles. . . ."<sup>211</sup>

By these resolutions, the General Assembly made it quite clear that it wanted, and expected, the Committee to formulate some agreement regarding damages and return of vehicles that would be based upon internationally

210. U.N. Doc. A/32/L/593 Rev. 1 (15 Dec. 1965).

211. Id., para. 2.







































































































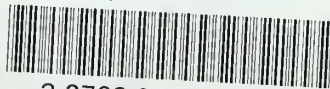






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